What is claimed is:

1.   A transmitter for receiving an advertisement containing information from a service provider and for conveying said advertisement to a handheld device, said transmitter comprising :

means for defining a context for said transmitter;

5   means for receiving said advertisement;

means for formatting said advertisement into a machine-readable form to produce a transmitted signal compatible with said handheld device; and

means for conveying said transmitted signal to said handheld device located within said context, said information displayed to a user of said handheld device if said

10   user has previously expressed an interest in said service.

2.   The transmitter of claim 1 wherein said conveying means transmits a diffuse infrared signal.

3.   The transmitter of claim 2 wherein said diffuse infrared signal has a wavelength substantially in the range of 850 nanometers to 1250 nanometers.

4.   The transmitter of claim 2 wherein said diffuse infrared signal is generated by modulating an electric light.

5.   The transmitter of claim 2 wherein said information is in the form of an XML element.

6.   The transmitter of claim 5 wherein said information in the form of an XML element is encapsulated in an integrity element.

7.   The transmitter of claim 1 further comprising means for receiving a reply from said handheld device.

8.   The transmitter of claim 1 wherein said handheld device includes a plug-in, said plug-in associated with said interest.

9.   A handheld device operating in a context associated with a transmitter conveying a transmitted signal, said handheld device comprising:

       means for receiving said transmitted signal to form a received signal, said received signal containing an advertisement comprising information from a service provider offering a service, said received signal further being present if said handheld device is located within said context, said context being communicatively associated with said transmitter; and

       means for extracting said advertisement if a user of said handheld device has expressed an interest in such a service.

10.   The handheld device of claim 9 wherein said means for extracting includes a plug-in, said plug-in associated with said expressed interest.

11.   The handheld device of claim 9 wherein said transmitted signal is a diffuse infrared signal.

12.   The handheld device of claim 9 further comprising means for displaying at least a portion of said information to said user.

13.   The handheld device of claim 12 further comprising means for accepting an input from said user, said input provided in response to said at least a portion of said information.

14.   The handheld device of claim 11 wherein said transmitter further includes means for receiving a reply from said handheld device, said reply generated in response to said input.

15.   The handheld device of claim 9 wherein said advertisement is comprised of a first XML element.

16.   The handheld device of claim 15 wherein said advertisement is encapsulated in an integrity element.

17.   The handheld device of claim 16 wherein said integrity element is comprised of a second XML element.

18. The handheld device of claim 17 wherein said integrity element further includes:

a checksum value, said checksum value representative of said advertisement;

a size value, said size value indicating the size of said advertisement;

a seed value, said seed value being used in computing said checksum value; and

5   an operator, said operator being used in conjunction with said size value and said

seed value to compute said checksum value.

19. A method for establishing a context of a user having a handheld device, said

method comprising the steps of:

placing a transmitter at a known location, said transmitter having a coverage area

associated therewith;

5   receiving information about a service from a service provider, said information

being of interest to said user of said handheld device if located within said coverage area;

formatting said information into an XML element for conversion into a

transmitted signal; and

sending said transmitted signal to said handheld device and displaying said

10 information to a user of said handheld device if said user has established a preference for

said information;

whereby establishing a context for a user having said handheld device was

accomplished.

20. The method of claim 19 further comprising:

creating a time element at said transmitter; and

sending said time element with said XML element; and

using said time element to establish a temporal context for said user.

21.   The method of claim 19 further comprising the step of utilizing a behavior of said user to establish said preference.

22.   The method of claim 19 further comprising the step of using a plug-in for establishing said preference.

23.   The method of claim 19 wherein said transmitted signal is comprised of a diffuse infrared signal.

24.   The method of claim 23 wherein said diffuse infrared signal is generated by modulating an electric light.

25.   A method for establishing a context of a user located within a coverage area associated with a transmitter, said method comprising the steps of:

receiving information at a handheld device communicatively associated with said transmitter, said information being of interest to a user of said handheld device if located within said coverage area;

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formatting said information into a first XML element;

encapsulating said first XML element in a second XML element, said second XML element being an integrity element;

converting said first XML element and said integrity element into a signal; and

10   emitting said signal to said handheld device located within said coverage area,

said information displayed to a user of said handheld device if said user has established a

preference at a time prior to receiving said signal;

whereby said context for said user having a handheld device and located within

said coverage area has been determined.

26.   The method of claim 25 wherein a time element is emitted in conjunction with

said first XML element and said integrity element, said time element for use in

establishing a temporal context for said user.

27.   The method of claim 26 wherein said time element is a time XML element.

28.   The method of claim 25 wherein said signal is a diffuse infrared signal.

29.   A method for receiving contextual information contained in an emitted signal

received from a transmitter having a coverage area associated therewith, said method

comprising the steps of:

establishing a preference for said information;

5   receiving said signal containing said information, said information included in a

broadcast XML element;

processing said broadcast XML element to extract said information;

displaying at least a portion of said information to said user located within said

coverage area if said preference was established prior to receiving said broadcast XML

10   element.

whereby said information is received from said transmitter.

30.   The method of claim 29 wherein said signal includes an integrity XML element

encapsulating said broadcast XML element.

31.   The method of claim 29 wherein said signal is a diffuse infrared signal.

32.   The method of claim 31 said diffuse infrared signal is generated by modulating an

electric light.

33.   The method of claim 30 wherein a plug-in is used to establish said preference.

34.   A method of utilizing executable code in a transmitter to establish a context of a

user having a handheld device and operating within a coverage area associated with said

transmitter, said method comprising the steps of:

receiving information about a service at said transmitter, said information being of

5   interest to a user of said handheld device if said user is located within said coverage area;

formatting said information into an XML element for conversion into a signal;

and

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emitting said signal to said handheld device located within said coverage area, said information displayed to a user of said handheld device.

35.   The method of claim 34 wherein said information is only displayed to said user if said user has established a preference prior to receiving said signal.

36.   The method of claim 34 further comprising the steps of:

generating a time element; and

emitting said time element in conjunction with said XML element, said time element for use in establishing a temporal context for said user.

37.   A method of utilizing executable code in a handheld device receiving a signal from a transmitter, said method comprising the steps of:

establishing a preference for information contained in said signal, said information being formatted as an XML element;

5   receiving said signal at a communication interface communicatively associated with said handheld device;

processing said signal to extract said information contained therein; and

displaying at least a portion of said information to a user located within said coverage area.

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38.   The method of claim 37 wherein a plug-in establishes said preference.

39.   The method of claim 37 wherein said coverage area defines a context for said user receiving said emitted signal.

40.   The method of claim 37 wherein said XML element is encapsulated in an integrity XML element.